Tech businesses partner with community colleges
BY ANN RUBENZAHL AND JEANNE MALONEY

Businesses today are partnering with community colleges to meet their training and education needs.

In a November report, the League for Innovation in the Community College wrote, "(As) the skills gap between those seeking employment and those seeking employees seems to be widening, community colleges have become" a resource to train "the local workforce."

Community colleges are helping advanced manufacturing companies, in particular, develop a talented workforce.

"Technological developments in the manufacturing sector have outpaced workforce skills, and demographic shifts have combined to create a gap in the workforce the manufacturing sector needs," concluded an October 2014 report by the Advanced Manufacturing Partnership, a national effort launched by President Barack Obama.

Addressing a need
The report went on to recommend the implementation of "a system of nationally recognized, portable and stackable skill certifications that employers utilize in hiring."

A recent U.S. Department of Labor grant, the Trade Adjustment Assistance Community College and Career Training grant program, funded such a system. In 2012, 11 proposals were funded across the U.S. through the program, including a $14.6 million consortium award to the State University of New York community colleges (submitted and administered by Monroe Community College in Rochester). The goal of the multiyear grant is to provide access to educational pathways that prepare individuals for industry-recognized credentials and careers in advanced manufacturing. Grant-supported programs leveraged dozens of industry partnerships and are training thousands across New York state. By the end of the second year, a total of 3,098 students had enrolled in a grant-eligible program. There are 13 SUNY campuses participating in the grant program, including Westchester Community College.

Hudson Valley and New York
As a partner in the SUNY grant consortium, Westchester Community College created a pathway program to enable people with no manufacturing experience to gain basic advanced manufacturing skills and multiple industry certifications, including National Institute for Metalworking Skills certificates. Those who complete the program are prepared for entry-level jobs in advanced manufacturing and, if qualified, they can continue their education to prepare for higher-level advanced manufacturing positions.

Also in New York, the result of a public/private partnership with SUNY Albany and Hudson Valley Community College as key partners, upstate has given rise to "the site of the most advanced semiconductor manufacturing operations in the world and arguably the nation's pre-eminent center of nanotechnology R&D," according to the National Research Council Committee on Competing in the 21st Century. Hudson Valley Community College supports this nanotech initiative and the associated workforce needs by offering programs that provide the specialized knowledge and skills required for entry-level positions in the semiconductor industry.
National trend
San Antonio manufacturers recently partnered with the Alamo Colleges, a community college system, to focus on the workforce of the future by introducing high school juniors and seniors to manufacturing careers and higher education by completing an industry-driven curriculum in manufacturing skills.

The program incorporates classroom instruction with hands-on learning in a state-of-the-art facility, and allows participating students to graduate from high school with up to 35 college credits, a National Career Readiness Certificate and the Production Technician Certification from the Manufacturing Skill Standards Council.

Local manufacturers provided significant input into program design and curriculum and local industry groups offer paid job internships. San Antonio manufacturers recruit graduates for job opportunities in manufacturing production operations and facilities maintenance.

In Virginia, Tidewater and Thomas Nelson community colleges partner with Northrop Grumman “to provide co-op experiences for community college students interested in computer-assisted design. Qualified students at these community colleges receive full tuition for an associate degree in computer-aided drafting and design technology or mechanical engineering technology … and a paid co-op experience” from Northrop Grumman Corp.’s facilities, according to a Center for American Progress report. “After graduating, students are employed at NGNN with an average starting salary of $31,200.”

Nationally, a consortium of 10 community colleges is working to narrow the gap between the skills companies need and those students are learning by developing five new training programs that colleges will be able to customize and replicate. The one-year certificate programs are in the high-demand STEM fields of composites, cybertechnology, electric-vehicle technology, environmental technology and mechatronics.

Programs like the National STEM Consortium are considered key to bridging the skills gap as they develop training programs that are responsive to input from key industry partners, community college faculty and national and local governing boards.

Best practices in technology education nationally, regionally and locally speak to the capacity of community colleges to offer programs that address the skills required by local employers. These community college training programs benefit from strong partnerships between local businesses and colleges, ones that result in programs being aligned with employer needs and offer internships that provide “real world” experiences and enable employers to assess future employees.

These win-win partnerships create a pipeline of employees with the knowledge and skills necessary to assist companies to grow and contribute to the local economy.

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